



LAMONS FASTENER & BOLTING DATA

Data for use with Alloy Steel Fasteners

Nominal Diameter of Stud (Inches)	Diameter at Root of Thread (Inches)	Area at Root of Thread (Sq. Inches)	Bolt Stress					
			30,000 PSI		45,000 PSI		60,000 PSI	
			Torque Ft. Lbs.	Compression Lbs.	Torque Ft. Lbs.	Compression Lbs.	Torque Ft. Lbs.	Compression Lbs.
1/4	0.185	0.027	4	810	6	1215	8	1620
5/16	0.240	0.045	8	1350	12	2025	16	2700
3/8	0.294	0.068	12	2040	18	3060	24	4080
7/16	0.345	0.093	20	2790	30	4185	40	5580
1/2	0.400	0.126	30	3780	45	5670	60	7560
9/16	0.454	0.162	45	4860	68	7290	90	9720
5/8	0.507	0.202	60	6060	90	9090	120	12,120
3/4	0.620	0.302	100	9060	150	13,590	200	18,120
7/8	0.731	0.419	160	12,570	240	18,855	320	25,140
1	0.838	0.551	245	16,530	368	24,795	490	33,060
1 1/8	0.963	0.728	355	21,840	533	32,760	710	43,680
1 1/4	1.088	0.929	500	27,870	750	41,805	1000	55,740
1 3/8	1.213	1.155	680	34,650	1020	51,975	1360	69,300
1 1/2	1.338	1.405	800	42,150	1200	63,225	1600	84,300
1 5/8	1.463	1.680	1100	50,400	1650	75,600	2200	100,800
1 3/4	1.588	1.980	1500	59,400	2250	89,100	3000	118,800
1 7/8	1.713	2.304	2000	69,120	3000	103,680	4000	138,240
2	1.838	2.652	2200	79,560	3300	119,340	4400	159,120
2 1/4	2.088	3.423	3180	102,690	4770	154,035	6360	205,380
2 1/2	2.338	4.292	4400	128,760	6600	193,140	8800	257,520
2 3/4	2.588	5.259	5920	157,770	8880	236,655	11,840	315,540
3	2.838	6.324	7720	189,720	11,580	284,580	15,440	379,440

Bolting Data for Standard ASME Flanges

Nominal Pipe Size (Inches)	150 PSI SERIES				300 PSI SERIES			
	Diam. of Flange (Inches)	Number of Bolts	Diam. of Bolts (Inches)	Bolt Circle (Inches)	Diam. of Flange (Inches)	Number of Bolts	Diam. of Bolts (Inches)	Bolt Circle (Inches)
1/4	3 3/8	4	1/2	2 1/4	3 3/8	4	1/2	2 1/2
1/2	3 1/2	4	1/2	2 3/8	3 3/4	4	1/2	2 5/8
3/4	3 7/8	4	1/2	2 3/4	4 5/8	4	5/8	3 1/4
1	4 1/4	4	1/2	3 1/8	4 7/8	4	5/8	3 1/2
1 1/4	4 5/8	4	1/2	3 1/2	5 1/4	4	5/8	3 7/8
1 1/2	5	4	1/2	3 7/8	6 1/8	4	3/4	4 1/2
2	6	4	5/8	4 3/4	6 1/2	8	5/8	5
2 1/2	7	4	5/8	5 1/2	7 1/2	8	3/4	5 7/8
3	7 1/2	4	5/8	6	8 1/4	8	3/4	6 5/8
3 1/2	8 1/2	8	5/8	7	9	8	3/4	7 1/4
4	9	8	5/8	7 1/2	10	8	3/4	7 7/8
5	10	8	3/4	8 1/2	11	8	3/4	9 1/4
6	11	8	3/4	9 1/2	12 1/2	12	3/4	10 5/8
8	13 1/2	8	3/4	11 3/4	15	12	7/8	13
10	16	12	7/8	14 1/4	17 1/2	16	1	15 1/4
12	19	12	7/8	17	20 1/2	16	1 1/8	17 3/4
14	21	12	1	18 3/4	23	20	1 1/8	20 1/4
16	23 1/2	16	1	21 1/4	25 1/2	20	1 1/4	22 1/2
18	25	16	1 1/8	22 3/4	28	24	1 1/4	24 3/4
20	27 1/2	20	1 1/8	25	30 1/2	24	1 1/4	27
24	32	20	1 1/4	29 1/2	36	24	1 1/2	32

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